



## 7 DE Admin Code 1138 Section 14

# ***New Miscellaneous Parts or Products Surface Coating Standard***



Public Workshops  
Sept. 22, 24, and 29, 2009

***Blue Skies Delaware; Clean Air for Life***



- Handouts



- Key Definitions

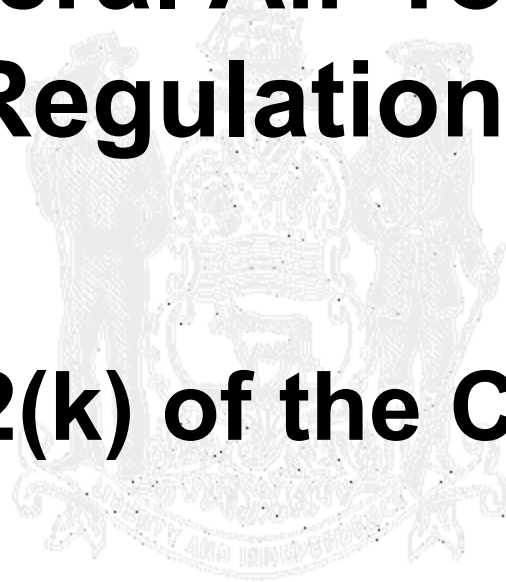
- Acronyms



# A New Breed of Federal Air Toxics Regulations



## 112(k) of the CAA



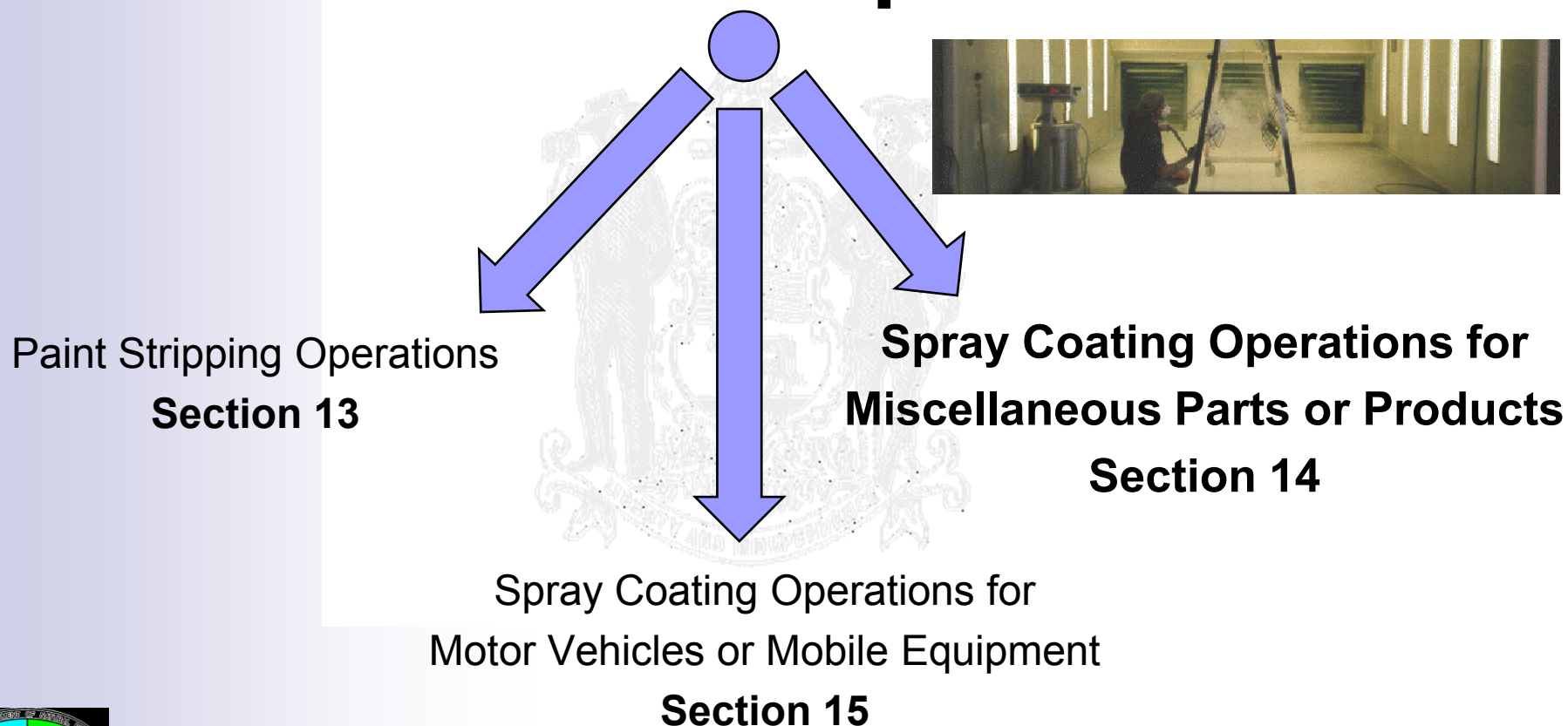
# Reducing Potential Adverse Health Impacts from Small Facilities

- Under Section 112(k) of the CAA, Congress mandated EPA to reduce cancer attributed to small area sources by at least 75%
- Congress required EPA to
  - Identify 30+ **HAPs** that present the greatest threat to public health
  - Identify source categories that emit 90% of these 30+ **HAPs**
  - Issue regulations to achieve the 75% reduction in cancer



# National Air Toxics Standard Finalized on January 9, 2008

## 40 CFR Part 63 Subpart HHHHHH



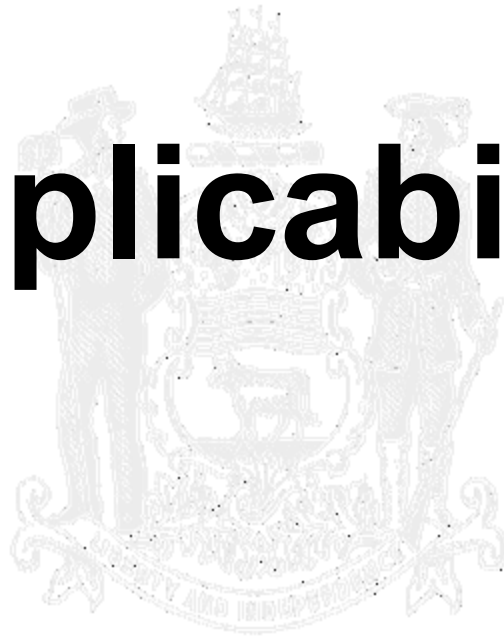
# **How is Section 14 different from other Delaware surface coating regulations?**

- Focusing on the Key Differences from Reg. 1124
  - Applicability
  - Emissions reduction strategy
  - Painting equipment requirements



# ***Who is subject to Section 14?***

## **Applicability**



# **Applicability Difference - 1**

- Applicable to many more product categories
  - Covers sources that apply surface coatings to all parts and products that are not
    - Motor vehicles
    - Mobile equipment
  - But limited to metal and/or plastic substrates

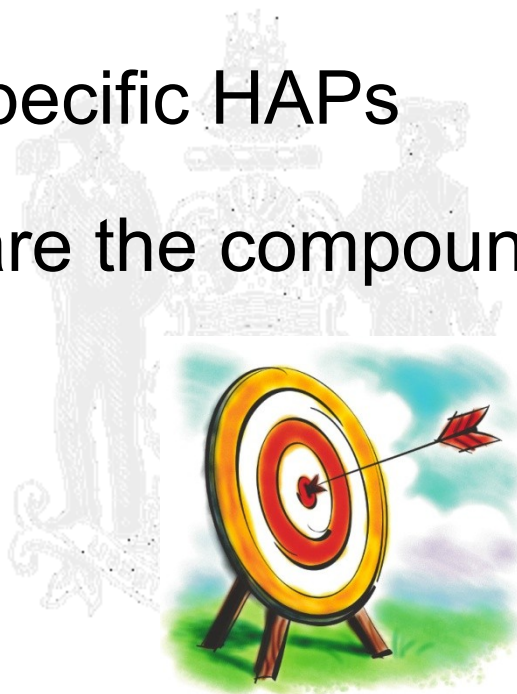
***Not Subject to Section 14***





## **Applicability Difference - 2**

- Focused only on the non-volatile component in the coating being applied (**coating solids**)
- Focused on 5 specific HAPs
- “**Target HAPs**” are the compounds of
  - Cadmium
  - Chromium
  - Lead
  - Manganese
  - Nickel



## **Applicability Difference - 3**

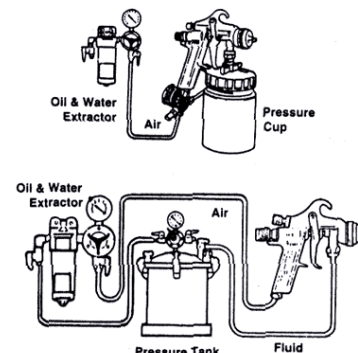
- There is **NO** low threshold for exemption
- Section 14 is applicable to “area HAP sources”

An **area source** of HAPs is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in aggregate, **less than 10 tons per year** of any HAP **and less than 25 tons per year** of any combination of HAPs.



## Applicability Difference - 4

- Section 14 is only applicable to surface coating operations that use spray application
- For the purposes of Section 14, the following are not considered spray applied materials/activities
  - Coatings applied from a **hand-held** device with a paint cup capacity that is  **$\leq 3.0$  fluid ounces**
  - Thermal spray operations
  - Powder coating application
  - Use of hand-held, non-refillable aerosol containers
  - Other non-atomizing application methods (i.e. brush, roller, dip, flow, etc)



# **So Who is Subject to Section 14?**

Each area source facility that performs spray application of coatings that contain target HAPs to any part or product made of plastic, metal, or combination of plastic and metal that are not motor vehicles or mobile equipment



# ***Are there any exemptions from Section 14?***

- Coating operations at installations owned or operated by the US Armed Forces
- Coating operations associated with military munitions manufactured by or for the US Armed Forces
- Coating operations associated with space vehicles
- Coating operations associated with facilities maintenance
- Coating operations conducted for **QC or R&D** purposes
- Coating operations already subject to an area source surface coating standard in 40 CFR Part 63 (excluding Subpart 6Hs)
- Coating operations conducted by private citizens for themselves or without compensation



## Are there any exemptions from Section 14?

# AND FINALLY (Drum roll please)

- Operations that demonstrate that they spray apply **NO** coatings that contains
  - $\geq 0.1\%$  of any “Target HAP” that is classed as a **OSHA-defined carcinogen** or
  - $\geq 1.0\%$  of any other “Target HAP”



***How do coating operations demonstrate  
that their coatings are under the  
0.1% and 1.0% “Target HAP” thresholds?***

**MSDS ?**

**Supplier's Certifications ?**

**Manufacturer's Certifications ?**



# **What must be done to be in compliance?**

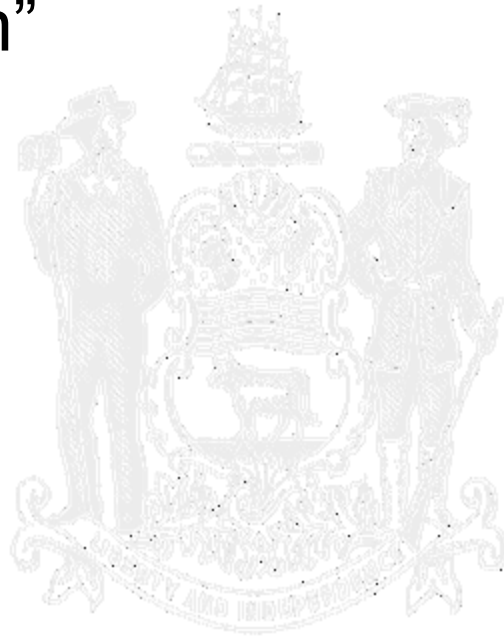
- Emissions Reduction Strategy
  - Requires certified trained painters
  - Requires the capture and control of atomized (coating solids) particulate
  - Provides spray painting equipment requirements





# **Certified Trained Painters - 1**

- **Prohibits** spray application by painters that are NOT certified as having completed the “defined training program”



## **Certified Trained Painters - 2**

- **Requires** the development and implementation of the “**defined training program**”
- The owner or operator is responsible for certifying those painters that successfully completed their training
- Training can be conducted in-house, contracted, or a combination
- Retraining is required every 5 years



# **Certified Trained Painters - 3**

- **Specifies** the minimum acceptable content of the “**defined training program**”
- Listing of all current painters by name and job description
- Description of the hands-on and classroom instruction components of the training
- Methods to be used to demonstrate the successful completion and certification



# **Certified Trained Painters - 4**

- **Specifies the minimum acceptable content of the hands-on and classroom instruction components**
- Spray gun selection, set up and operation
- Spray technique for different types of coatings to improve transfer efficiency
- Routine spray booth and filter maintenance
- Filter selection and installation
- Environmental compliance requirements



# **Certified Trained Painters - 5**

- Painters must be certified no later than
  - January 10, 2011 or within 180 days following hiring (EXISTING sources)
  - **March 11, 2010** or within 180 days following hiring (NEW sources)
- **Requires** painters to be **re-certified** as having completed the “**defined training program**” **refresher course** every five (5) years



# **Certification of Trained Painters**

- Is the “**defined training program**” is a significant change from what you are currently doing?
- How **can we help** with the environmental compliance requirements portion of the “defined training program”?



# **What must be done to be in compliance?**

- Emissions Reduction Strategy
  - Requires certified trained painters
  - Requires the capture and control of atomized (coating solids) particulate
  - Provides spray painting equipment requirements



# **Capture and Control of Particulate - Capture**

- **Requires** that all spray applications be applied in a spray booth, preparation station or mobile enclosure
- **Requires** spray booths and preparation stations to have a full roof and at least 3 complete walls
- **Requires** spray booths and preparation stations to be ventilated to draw air into the enclosure so the overspray is captured and directed to a filter
- **Requires** mobile ventilated enclosures be sealed against the surface being coated so the overspray is captured and directed to a filter





# **Capture and Control of Particulate - Control**

- Requires fitting all enclosures with a filter technology “manufacturer certified” to achieve at least **98%** capture of particulate
- Requires the installation and monitoring of the pressure drop across the installed filter technology
- Limits spray application to when the pressure drop across the filter is within manufacturer’s recommended operating range



# **What must be done to be in compliance?**

- Emissions Reduction Strategy
  - Requires certified trained painters
  - Requires the capture and control of atomized particulate
  - Provides spray painting equipment requirements



# ***Painting Equipment Requirements***

- **Limits** the spray application of coating to
  - **HVLP** spray guns
  - **Electrostatic** application
  - **Airless** spray guns
  - **Air-assisted airless** guns
  - **EPA approved alternative** equivalent to HVLP



# ***Painting Equipment Requirements***

- **Prohibits** spray gun cleaning in which an atomized mist or spray is outside the container that collects the solvent
- Allows non-atomized flow through cleaning
- Allows manual disassembly and hand cleaning



# ***Are there other compliance requirements?***

## **For existing sources**

- **Submittal** of “Initial Notification” no later than **March 11, 2010**
- **Submittal** of “Notification of Compliance Status” no later than March 11, 2011
- **Submittal** of “Annual Notification of Changes” report prior to March 1 following each calendar year, if a deviation or change occurred
- **Keep** all records associated determination of pressure drop monitoring across the filtration system



# ***Are there other compliance requirements?***

## **For new sources**

- **Submittal** of “Initial Notification” no later than 180 day following initial start up or Mar. 11, 2010, whichever is later
- **Submittal** of “Notification of Compliance Status” no later than 180 day following initial start up or Mar. 11, 2010, whichever is later
- **Submittal** of “Annual Notification of Changes” report prior to March 1 following each calendar year, if a deviation or change occurred
- **Keep** all records associated determination of pressure drop monitoring across the filtration system



# **Where are the Notifications/Reports Sent?**



Delaware DNREC

Administrator, Air Quality Management

156 S. State Street

Dover, DE 19901

With a copy to



U. S. Environmental Protection Agency

Director, Air Protection Division

1650 Arch Street

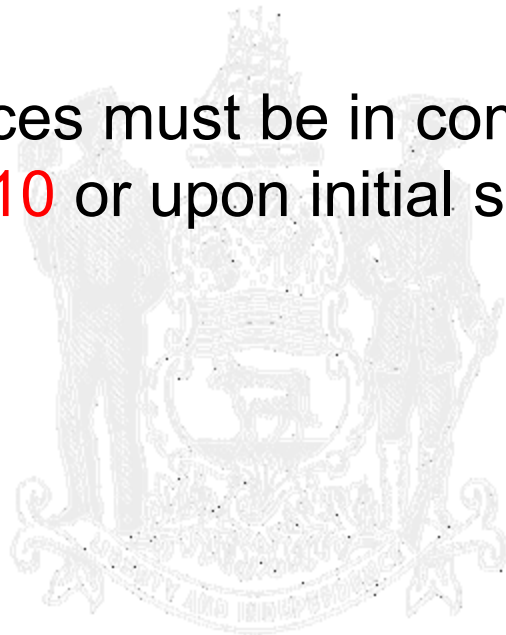
Philadelphia, PA 19103



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# **When must a facility be in compliance?**

- Existing affected sources must be in compliance no later than January 10, 2011
- New affected sources must be in compliance not later than **March 11, 2010** or upon initial startup, whichever is later





# *What are the permitting requirements?*

- Miscellaneous parts or products coating operations subject to Section 14 are exempt from Title V permitting requirements, **IF** the O/O is not otherwise required to obtain a Title V permit under 3.1 of 7 **DE Admin Code 1130**
- Miscellaneous parts or products coating operations subject to Section 14 may be SUBJECT to permitting requirements under 7 **DE Admin Code 1102**



# Why is this standard being adopted?

## Target hazardous air pollutants (HAPs)

- Compounds of cadmium (Cd)
- Compounds of chromium (Cr)
- Compounds of lead (Pb)
- Compounds of manganese (Mn)
- Compounds of nickel (Ni)



# Why is this standard being adopted?

## Carcinogenic Effects

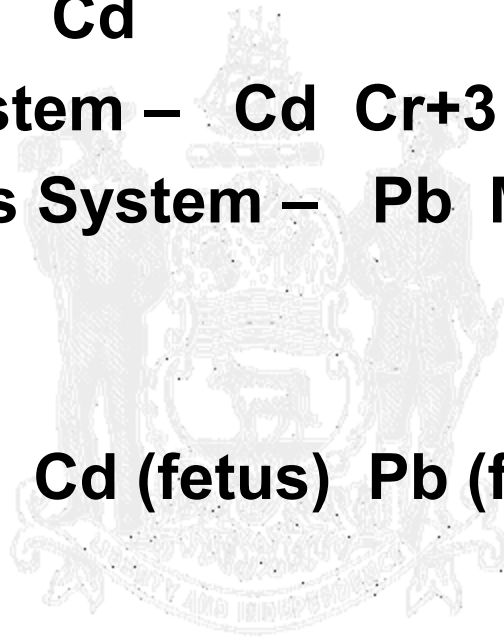
- EPA classified known carcinogen (Group A)
  - Cr+6 compounds
- EPA classified probable carcinogen (Group B1/B2)
  - Cadmium and its compounds
  - Cr+3 compounds
  - Lead compounds
  - Nickel and its compounds



# Why is this standard being adopted?

## Chronic Non-carcinogenic Effects

- Renal System – Cd
- Respiratory System – Cd Cr+3 Mn Ni
- Central Nervous System – Pb Mn
- Blood – Pb
- Skin – Ni
- Development – Cd (fetus) Pb (fetus & children)



# Why is this standard being adopted?

## Detailed Health Effects Information

- <http://www.epa.gov/ttn/atw/hlthef/cadmium.html>
- <http://www.epa.gov/ttn/atw/hlthef/chromium.html>
- <http://www.epa.gov/ttn/atw/hlthef/lead.html>
- <http://www.epa.gov/ttn/atw/hlthef/manganes.html>
- <http://www.epa.gov/ttn/atw/hlthef/nickel.html>



# **Compliance Assistance Tools Available**

- Initial notification
- Notification of compliance status
- Annual notification of changes report
- Certification template

<http://www.awm.delaware.gov/Info/Regs/Pages/Section14.aspx>



## **Projected Path Forward**

- Publish proposed regulation in Delaware Register of Regulation – December 1, 2009
- Public hearing – Dover – January 2010
- Publish final regulation in Delaware Register of Regulation – March 1, 2010
- Regulation effective date – **March 11, 2010**



# **WARNING – WARNING - WARNING**

The national air toxics standard on which Section 14 is heavily based (40 CFR Part 63 Subpart HHHHHH) requires **existing** area source facilities that apply spray coatings that contain target HAPs to parts or products to submit an “**Initial Notification**” to EPA no later than January 11, 2010.





# **For More Information**

- [www.awm.delaware.gov/Info/Regs/Pages/Section14.aspx](http://www.awm.delaware.gov/Info/Regs/Pages/Section14.aspx)
- Contact Jim Snead
  - (302) 323-4542
  - [james.snead@state.de.us](mailto:james.snead@state.de.us)

